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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,951	07/03/2003	You Hie Han	030681-539	3488
21839	7590	08/03/2005	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			VAN ROY, TOD THOMAS	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/611,951

Applicant(s)

HAN ET AL.

Examiner

Tod T. Van Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/19/2004</u> .  | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 5-6, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatah (US 5519724).

With respect to claims 1, 5, and 9, Tatah discloses a laser system for multi-wavelengths comprising: a laser oscillator oscillating a laser beam (fig.1 #1), a second/third/fourth harmonic generation module (fig.1 #9, col.1 lines 25-30) receiving the laser beam from the laser oscillator and generating a second/third/fourth harmonic

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wavelength, and a reflection mirror (fig.1 #10) detachably arranged between the oscillator and the second/third/fourth harmonic generation module to reflect the laser beam oscillated by the laser oscillator in one direction when installed on a laser beam path, wherein the laser system oscillates a laser beam having a fundamental wavelength when the reflection mirror is installed on the laser beam path, and a laser beam having a second/third/fourth harmonic wavelength when the reflection mirror is detached from the laser beam path. Tatah does not teach the laser fundamental wavelength to be 1064 nm. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the laser system of Tatah with 1064 nm light as this wavelength is well known and widely used in the art of lasers, namely when using Neodymium doped solid state active material.

With respect to claims 2, 6, and 10, Tatah further teaches that the mirror is of a rotational type, to attach or detach the reflection mirror from or on the laser beam path (col.3 lines 39-44).

Claims 3-4, 7-8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Tatah.

With respect to claims 3-4, 7-8, and 11-12, the applicant's admitted prior art teaches a chip scale marker comprising: a laser system including a laser oscillator oscillating a laser beam (fig.1 #11), a first Galvano scanner scanning the laser beam in X-Y directions' (fig.1 #13), a first f-0 lens (fig.1 #15) making the laser beam from the first Galvano scanner form the same focal length on an entire marking area; a first wafer

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holder supporting a wafer to which the laser beam passing through the first f-0 lens is irradiated (fig.1 #20). The prior art does not teach a second Galvano scanner scanning the laser beam in the X-Y directions when the reflection mirror is detached from a laser beam path; a second f-0 lens making the laser beam from the second Galvano scanner form the same focal length on an entire marking area; and a second wafer holder supporting a wafer to which the laser beam passing through the second f-0 lens is irradiated, or placing a reflection mirror detachably arranged between the oscillator and a second/third/fourth harmonic generation module to direct the laser beam towards the second Galvano scanning mirrors. Tatah teaches a laser system utilizing a rotating mirror placed between optical components (including a harmonic generator of various types, see rejection to claims 1, 5, and 9 above) that direct the laser beam to either of the set of targets as the application determines (Tatah, fig.1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the admitted prior art with the rotating mirror and harmonic generating module of Tatah in order to generate multiple wavelengths in an efficient manner for treating a plurality of materials simultaneously or treating the same material with different wavelengths in series (Tatah, col.4 lines 53-57), as well as the duplication of existing components taught by the admitted prior art to perform multiple marking operations simultaneously (see MPEP 2144.04 VI B - In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) – speaking of the duplication of existing parts not being given patentable weight, i.e. the duplication of the wafer holder, Galvano scanner, and f-0 lens).

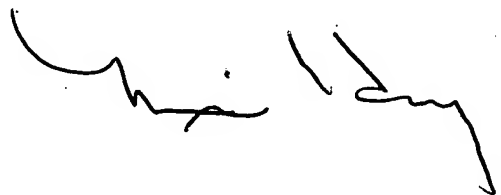
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVR



**MINSUN OH HARVEY  
PRIMARY EXAMINER**